Claims

A pharmaceutical composition which comprises
 (a) (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

$$H_3C$$
 O
 O
 CH_3
 O
 CH_3
 O
 CH_3
 O
 CH_3

or a pharmaceutically acceptable salt thereof, and (b) an antidepressant drug.

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2. A pharmaceutical composition which comprises (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

or a pharmaceutically acceptable salt thereof for administering simultaneously or separately at a time interval in combination with an antidepressant drug.

- 3. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a tricyclic antidepressant, a tetracyclic antidepressant, a selective serotonin reuptake inhibitor, a selective noradrenalin reuptake inhibitor, a dopamine reuptake inhibitor, a serotonin-noradrenalin reuptake inhibitor, a monoamine oxidase inhibitor or a serotonin 2 (5-HT₂) antagonist.
 - 4. The pharmaceutical composition according to claim

- 1 or 2, wherein the antidepressant drug is a tricyclic antidepressant.
- 5. The pharmaceutical composition according to claim 4, wherein the tricyclic antidepressant is imipramine hydrochloride, clomipramine hydrochloride, amitriptyline hydrochloride, nortriptyline hydrochloride, amoxapine, trimipramine maleate, lofepramine, lofepramine hydrochloride, dosulepin hydrochloride, protriptyline, doxepin or desipramine hydrochloride.
- 10 6. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a tetracyclic antidepressant.
 - 7. The pharmaceutical composition according to claim 6, wherein the tetracyclic antidepressant is maprotiline hydrochloride, mianserin hydrochloride or setiptiline maleate.
 - 8. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a selective serotonin reuptake inhibitor.
- 9. The pharmaceutical composition according to claim
 20 8, wherein the selective serotonin reuptake inhibitor is
 fluoxetine hydrochloride, sertraline hydrochloride, paroxetine
 hydrochloride, paroxetine hydrochloride hydrate, citalopram
 hydrobromide, fluvoxamine maleate, trazodone hydrochloride or
 nefazodone hydrochloride.
- 25 10. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a selective noradrenal in reuptake inhibitor.
 - 11. The pharmaceutical composition according to claim 10, wherein the selective noradrenalin reuptake inhibitor is reboxetine mesylate, mirtazapine, maprotiline hydrochloride,

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nortriptyline hydrochloride, amoxapine, bupropion or bupropion hydrochloride.

- 12. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a serotonin-noradrenalin reuptake inhibitor.
- 13. The pharmaceutical composition according to claim 12, wherein the serotonin-noradrenalin reuptake inhibitor is milnacipran hydrochloride, venlafaxine hydrochloride or duloxetine hydrochloride.
- 10 14. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a dopamine reuptake inhibitor.
- 15. The pharmaceutical composition according to claim 14, wherein the dopamine reuptake inhibitor is venlafaxine 15 hydrochloride.
 - 16. The pharmaceutical composition according to claim 1 or 2, wherein the antidepressant drug is a monoamine oxidase inhibitor.
- 17. The pharmaceutical composition according to claim
 20 16, wherein the monoamine oxidase inhibitor is selegiline
 hydrochloride, safinamide mesylate or moclobemide.
 - 18. The pharmaceutical composition according to t claim 1 or 2, wherein the antidepressant drug is a $5-\mathrm{HT}_2$ antagonist.
- 19. The pharmaceutical composition according to claim 25 18, wherein the $5-\mathrm{HT}_2$ antagonist is mirtazapine, trazodone hydrochloride or nefazodone hydrochloride.
 - 20. A therapeutic agent for depression which comprises (a) (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

$$H_3C$$
 N
 N
 N
 $O-CH_3$
 CH_3
 CH_3

or a pharmaceutically acceptable salt thereof and

(b) an antidepressant drug

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for administering simultaneously or separately at a time interval.

- 21. The therapeutic agent for depression according claim 20, wherein the antidepressant drug is a tricyclic antidepressant, a tetracyclic antidepressant, a selective serotonin reuptake inhibitor, a selective noradrenalin reuptake inhibitor, a dopamine reuptake inhibitor, a serotonin-noradrenalin reuptake inhibitor, a monoamine oxidase inhibitor or a $5-HT_2$ antagonist.
- 22. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a tricyclic antidepressant.
- 23. The therapeutic agent for depression according to claim 22, wherein the tricyclic antidepressant is imipramine hydrochloride, clomipramine hydrochloride, amitriptyline hydrochloride, nortriptyline hydrochloride, amoxapine, trimipramine maleate, lofepramine, lofepramine hydrochloride, dosulepin hydrochloride, protriptyline, doxepin or desipramine hydrochloride.
 - 24. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a tetracyclic antidepressant.
- 25. The therapeutic agent for depression according to claim 24, wherein the tetracyclic antidepressant is maprotiline hydrochloride, mianserin hydrochloride or setiptiline maleate.

- 26. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a selective serotonin reuptake inhibitor.
- 27. The therapeutic agent for depression according to claim 26, wherein the selective serotonin reuptake inhibitor is fluoxetine hydrochloride, sertraline hydrochloride, paroxetine hydrochloride, paroxetine hydrochloride hydrothloride hydrochloride or nefazodone hydrochloride.
- 10 28. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a selective noradrenalin reuptake inhibitor.
 - 29. The therapeutic agent for depression according to claim 28, wherein the selective noradrenalin reuptake inhibitor is reboxetine mesylate, mirtazapine, maprotiline hydrochloride, nortriptyline hydrochloride, amoxapine, bupropion or bupropion hydrochloride.

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- 30. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a serotonin-noradrenalin reuptake inhibitor.
- 31. The therapeutic agent for depression according to claim 30, wherein the serotonin-noradrenalin reuptake inhibitor is milnacipran hydrochloride, venlafaxine hydrochloride or duloxetine hydrochloride.
- 25 32. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a dopamine reuptake inhibitor.
 - 33. The therapeutic agent for depression according to claim 32, wherein the dopamine reuptake inhibitor is venlafaxine hydrochloride.

- 34. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a monoamine oxidase inhibitor.
- 35. The therapeutic agent for depression according to claim 34, wherein the monoamine oxidase inhibitor is selegiline hydrochloride, safinamide mesylate or moclobemide.
 - 36. The therapeutic agent for depression according to claim 20, wherein the antidepressant drug is a $5-\mathrm{HT}_2$ antagonist.
- 38. The therapeutic agent for depression according to claim 36, wherein the $5-\mathrm{HT}_2$ antagonist is mirtazapine, trazodone hydrochloride or nefazodone hydrochloride.
 - 38. (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

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or a pharmaceutically acceptable salt thereof for administering simultaneously or separately at a time interval in combination with an antidepressant drug.

39. A kit which comprises (a) a first component comprising

(E) -8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro

-1H-purine-2,6-dione represented by the formula (I):

$$H_3C$$
 N
 N
 N
 $O-CH_3$
 CH_3
 CH_3
 CH_3

or a pharmaceutically acceptable salt thereof and

- (b) a second component comprising an antidepressant drug.
 - 40. A kit for treatment of depression which comprises
- (a) a first component comprising (E)-8-(3,4-
- 5 dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

$$H_3C$$
 O
 CH_3
 CH_3
 CH_3
 CH_3
 CH_3

or a pharmaceutically acceptable salt thereof and

- (b) a second component comprising an antidepressant drug.
- 10 41. A method for treating depression, which comprises administering
 - (a) (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

- 15 or a pharmaceutically acceptable salt thereof and
 - (b) an antidepressant drug

simultaneously or separately at a time interval.

- 42. A pharmaceutical composition which comprises
- (a) a compound having an adenosine A_{2A} receptor antagonistic
- 20 activity or a pharmaceutically acceptable salt thereof and
 - (b) a monoamine oxidase inhibitor.
 - 43. A compound having an adenosine A2A receptor

antagonistic activity or a pharmaceutically acceptable salt thereof for administering simultaneously or separately at a time interval in combination with a monoamine oxidase inhibitor.

- 44. A pharmaceutical composition which comprises a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof for administering simultaneously or separately at a time interval in combination with a monoamine oxidase inhibitor.
- 45. A therapeutic agent for depression which comprises

 10 (a) a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof and

 (b) a monoamine oxidase inhibitor

 for administering simultaneously or separately at a time interval.
 - 46. A kit which comprises

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- 15 (a) a first component comprising a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof and
 - (b) a second component comprising a monoamine oxidase inhibitor.
- 47. A kit for treatment of depression which comprises
 20 (a) a first component comprising a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof and
 - (b) a second component comprising a monoamine oxidase inhibitor.
- 48. A method for treating depression, which comprises 25 administering
 - (a) a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof and
 - (b) a monoamine oxidase inhibitor
 - simultaneously or separately at a time interval.
- 30 49. Use of a combination of

- (a) a compound having an adenosine A_{2A} receptor antagonistic activity or a pharmaceutically acceptable salt thereof and (b) a monoamine oxidase inhibitor

for the manufacture of a therapeutic agent for depression.

50. Use of a combination of

(a) (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione represented by the formula (I):

or a pharmaceutically acceptable salt thereof and

10 (b) an antidepressant drug

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for the manufacture of a therapeutic agent for depression.